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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/593,751
Filing Date: June 11, 2007
Appellant(s): LEIGHTON, MURRAY EDWARD BRUCE

Ronald E. Brown
Day Pitney LLP
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 31 December 2009 appealing from the Office action mailed 29 June 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

GB 2,349,603	Leighton	11-2000
US 6,588,176	Buchman	7-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-9, 14, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leighton (GB 2,349,603) in view of Buchman (US 6,588,176).

Regarding claim 1, the Leighton reference discloses an apparatus for applying pre-cut lengths of zipper transversely to a web 24 and to then feeding the web including the zippers to a form/fill/seal machine. The Leighton reference teaches the use of a rotary driven turret 20 including grooves (formed from guides 28, 30) for receiving the pre-cut lengths of zipper, and that a heated sealing bar 36 is used to remove the pre-cut lengths of zipper from the grooves of the turret and to attach the zippers to the web in a transverse manner to the direction of movement of the web 24.

The Leighton reference teaches structure which is deemed to meet all of the various means-plus-function limitations recited in claim 1 and thus meets all of applicant's claimed subject matter with the exception of the slider mounting device for mounting sliders on the zipper, and that the means for feeding pre-cut lengths of zipper comprising first and second interengageable profiles includes a slider mounted thereon.

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Furthermore, the Leighton reference does not teach that the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length.

The use of zippers including sliders is notoriously old and well known in the relevant art in order to form reclosable bags in which the slider is use to separate interlocking profiles. It is also notoriously old and well known in the art for reclosable zippered bags to be formed with or without a slider mounted on the zipper.

The Buchman reference teaches a similar type of apparatus and method for transversely attaching zippers 20 including a slider 50 mounted thereon, in which, the slider 50 is applied to the zipper 20 before the zipper 20 is pre-cut and then attached to the web 110 as is seen in figure 4, and discussed at least at column 4, line 57 through column 5, line 60.

It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Leighton apparatus by having included a device for mounting sliders on the zipper, as disclosed by Buchman, for the purpose of providing a consumer with a finished bag which includes a slider mounted on the zipper to make for easier opening/closing of the reclosable zipper. Furthermore, it is routine for a skilled artisan to combine the teachings and structure of old and well known devices and methods when such a combination would achieve predictable and successful results.

Concerning the limitation that the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length, and that each wider portion extends to slightly beyond the mid-point of its respective groove from an insertion end thereof

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(claim 5), it would have been an obvious matter of engineering choice to change the shape of the grooves in order to accommodate the slider mounted on the zipper in the now modified Leighton apparatus, since such a modification would have involved a mere change in the shape or form of a component. A change in shape or form is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1976). Furthermore, a skilled artisan when reviewing the combination of Leighton and Buchman would have been well aware of the need to accommodate the shape of the slider mounted on the zipper length so as to permit the slider mounted on the zipper to be inserted in the groove of the turret. It being obvious that a skilled artisan would have modified the shape of the turret grooves to accommodate the shape of the slider mounted on the zipper length based on the provision of obvious-to-try rationale.

Regarding claims 14 and 17, the Leighton reference discloses a method for applying pre-cut lengths of zipper transversely to a web 24 and to then feeding the web including the zippers to a form/fill/seal machine. The Leighton reference teaches the use of a rotary driven turret 20 including grooves (formed from guides 28, 30) for receiving the pre-cut lengths of zipper, and that a heated sealing bar 36 is used to remove the pre-cut lengths of zipper from the grooves of the turret and to attach the zippers to the web in a transverse manner to the direction of movement of the web 24. The Leighton reference meets all of applicant's claimed subject matter with the exception of the feeding of pre-cut lengths of zipper step in which each zipper length includes first and second interengageable profiles including a slider mounted thereon.

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Furthermore, the Leighton reference does not teach that the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length.

As stated earlier, the use of zippers including sliders is notoriously old and well known in the relevant art in order to form reclosable bags in which the slider is use to separate interlocking profiles. It is also notoriously old and well known in the art for reclosable zippered bags to be formed with or without a slider mounted on the zipper.

The Buchman reference teaches a similar type of apparatus and method for transversely attaching zippers 20 including a slider 50 mounted thereon, in which, the slider 50 is applied to the zipper 20 before the zipper 20 is pre-cut and then attached to the web 110 as is seen in figure 4, and discussed at least at column 4, line 57 through column 5, line 60.

It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Leighton method by having had the step of feeding pre-cut lengths of zipper have each zipper length include first and second interengageable profiles and a slider mounted thereon, as suggested by Buchman, for the purpose of providing a consumer with a finished bag which includes a slider mounted on the zipper to make for easier opening/closing of the reclosable zipper. Furthermore, it is routine for a skilled artisan to combine the teachings and structure of old and well known devices and methods when such a combination would achieve predictable and successful results.

Concerning the limitation that the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length, it would have been an obvious matter

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of engineering choice to change the shape of the grooves in order to accommodate the slider mounted on the zipper in the now modified Leighton apparatus, since such a modification would have involved a mere change in the shape or form of a component. A change in shape or form is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1976). Furthermore, a skilled artisan when reviewing the combination of Leighton and Buchman would have been well aware of the need to accommodate the shape of the slider mounted on the zipper length so as to permit the slider mounted on the zipper to be inserted in the groove of the turret. It being obvious that a skilled artisan would have modified the shape of the turret grooves to accommodate the shape of the slider mounted on the zipper length based on the provision of obvious-to-try rationale.

Concerning claims 6 and 15, the Leighton machine discloses a heated sealing bar 36 which is moved toward and away from the film and is located adjacent the attachment location of the zipper and on an opposite side of the web than the turret.

Concerning claims 7, 8 and 18, the Buchman reference teaches a roller nip 165 which would have been obvious to combine with the Leighton machine in order to feed the zipper and slider to the groove of the turret. Furthermore, to have made the roller nip adjustable to allow the slider to pass there through would have been obvious to a skilled artisan in order to prevent damage to the roller nip. Concerning the roller surfaces being convex, it would have been an obvious matter of design choice to have had the roller surfaces be convex, since appellant has not disclosed that having a

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convex roller surface solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with non-convex roller surfaces.

Concerning claims 9 and 19, the form/fill/seal machine is disclosed by Leighton.

3. Claims 2, 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1 and 14 above, and further in view of applicant's admitted prior art.

Concerning claims 2 and 16, the Leighton apparatus, as modified by Buchman, does not expressly disclose that the slider mounting device for mounting the slider to the zipper is a rotary slider applicator, but applicant admits that rotary slider applicators for mounting a slider to a zipper are old and well known as discussed at page 6 of the present application. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have further modified the Leighton apparatus to have made use of a rotary slider applicator as the slider mounting device for mounting the sliders on the zipper. It being routine for a skilled artisan to combine the teachings and structure of old and well known devices and methods when such a combination would achieve predictable and successful results.

Concerning claim 3, the Leighton reference discloses a knife 18 located just before the zipper is fed into the groove of the turret.

4. Claims 10, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1 and 14 above, and further in view of applicant's admitted prior art.

Concerning claims 10, 11, 20 and 21, in the Office action, mailed 19 December 2008, the examiner took Official Notice that it is notoriously old and well known in the relevant art to have a machine to receive a zippered web and to convert the zippered web into bags which are subsequently filled, or to have a roll onto which a zippered web may be attached for subsequent use in making bags or for use in a form/fill/seal machine.

As was stated in the Final Office action, mailed 29 June 2009, "Since applicant has not challenged the examiner's taking of Official Notice, the holding is deemed to be an admission of applicant's admitted prior art."

Thus, it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have further modified the Leighton machine for forming a zippered web to have had a machine arranged to receive the zippered web and convert the zippered web into bags which are subsequently filled, or to attach the zippered web to a roll for subsequent use in making empty bags or for use in a form/fill/seal machine. It being routine for a skilled artisan to apply the teachings of notoriously old and well known machines and methods to other technology open for similar use and improvement. Such a modification would provide multiple uses for the zippered web formed by the modified Leighton machine and method.

(10) Response to Argument

Appellant's arguments filed 31 December 2009 have been fully considered but they are not persuasive, and the Board should affirm the rejections set forth above.

Regarding appellant's argument concerning the rejection of claims under 35 USC 103, found at page 6 of the Brief filed 31 December 2009, that the examiner has made use of improper hindsight gained after review of the disclosure, and that such a combination of Leighton and Buchman would not suggest:

the inline application of a slider to a zipper before the zipper is driven into the turret;

the turret having grooves into which the zipper is driven; and

the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this instance, a person having ordinary skill in the art would, on reviewing the reference as well as taking into account the general knowledge of a person having ordinary skill in the art, have found that it is quite obvious to combine the teachings and suggestions of the prior art references to Leighton and Buchman.

Given the fact that it is routine for a skilled artisan to combine old and well known structures and methods of their use, it is difficult to understand how a person of ordinary skill in the art would be guilty of relying on knowledge not easily found from the prior art

or general knowledge. The examiner thus cannot be considered to have made the conclusion of obviousness based on improper hindsight reasoning.

In response to appellant's argument that the combination of Leighton and Buchman would not suggest the inline application of a slider to a zipper before the zipper is driven into the turret, the turret having grooves into which the zipper is driven, and the grooves in the turret include a wider portion for receiving the slider on each pre-cut zipper length. The examiner recognizes that "Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966). See also KSR, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR, 550 U.S. at 416. A prima facie conclusion of obviousness may be supported by a showing that the claims are directed to a process, machine, manufacture, or composition of matter already

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known in the prior art that is altered by the mere substitution of one element for another known in the field, and such modification yields a predictable result. See id. (citing United States v. Adams, 383 U.S. 39, 50-51 (1966)). The Court further stated that:

“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”

KSR, 550 U.S. at 417. When considering obviousness of a combination of known elements, the operative question is thus "whether the improvement is more than the predictable use of prior-art elements according to their established functions. Id."

The examiner also recognizes that obvious may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the conclusion of obviousness of the claimed subject matter is based on what is found in the applied prior art as well as the knowledge of a person having ordinary skill in the relevant art. All of the features or limitations of the claims are found in the applied prior art or have been properly addressed by the examiner in the rejection of the relevant claims, and the conclusion of obviousness is likewise based on

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teachings and suggestions found in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

The limitations which appellant has argued at page 6 of the Brief are sufficiently taught or suggested by the prior art, and they have been combined in a manner which would produce results which a skilled artisan would find to be expected or successful. The modifications to the prior art to arrive at the claimed subject matter take into account only knowledge directly from the prior art references or that which is reasonably expected to be known by a skilled artisan. Accordingly, the Board should affirm the rejections as appellant has failed to point out any error in the rejections.

Appellant's arguments concerning the rejections under 35 USC 103 of the dependent claims 2, 3 and 16 and claims 10, 11, 20 and 21, found at page 7 of the brief, is based on these claims depending from what appellant believes to be patentable independent claims. The argument does not point out any true error in the particular rejections themselves, and accordingly, the Board should affirm these rejections.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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